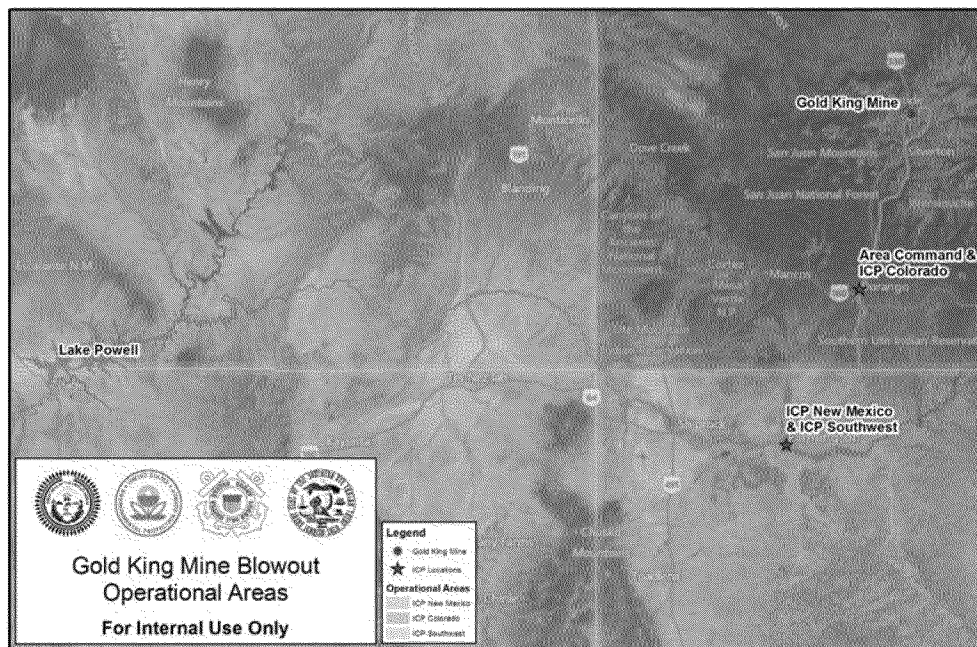


U.S. ENVIRONMENTAL PROTECTION AGENCY  
AREA COMMAND EXECUTIVE SUMMARY / SITUATION REPORT  
2015 Gold King Mine Release



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Area Command (EPA Regions 8, 6, and 9)



EXECSUM / SITREP #5  
Gold King Mine Release

Subject:

San Juan County, Colorado  
Latitude: 37.8945 Longitude: -107.6384

From: Area Command Situation Unit

Date: 08/16/2015

Reporting Period: 08/15/2015 0700 through 08/16/2015 0700

Website: [www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine)

## **Executive Summary**

For Internal Use Only  
Gold King Mine Release  
EPA Executive Summary: August 16, 2015 1900

### **Situation Summary**

EPA Area Command (AC), comprised of EPA Regions 6, 8, and 9 is continuing strategic management over the three Unified Incident Command Posts (ICPs).

### **Highlights, Key Updates/Changes**

- AC Situation Unit provided the Regional Situation Units with a list of additional metrics to include in their daily SITREPs.
- AC Resources procured two Utility Terrain Vehicles (UTVs) for transporting visitors at the Gold King Mine Site.
- AC Safety Officer drafted a Media Coordination Safety Plan and UTV Safety SOP.
- On Saturday, August 15, 2015, the State of Utah lifted its advisory for crop irrigation and livestock watering.
- AC implemented a Critical Incident Stress Management (CISM) program for response personnel.

### **Area Command Emphasis**

For the next operational period, the AC command's emphasis will be:

- Positive and professional communications.
- Response documentation and right-sizing guidance.
- Preparation for visits scheduled next week by Congressional members and OSWER Headquarters personnel.
- Plan to consolidate data from the various call centers and establish a central database for this call data.
- Safety risk management and mitigation practices.

Note: The metrics provided in this SITREP represent quantities reported in the EPA Regions 6, 8, and 9 SITREPs for work completed on Saturday, August 15, 2015.

## 1.0 Operations

### 1.1 Sampling Operations

Operations sampling activities for August 15, 2015 are summarized below.

**Table 1 □ Operation Sampling Summary as of August 15, 2015**

<b>Matrix</b>	<b>Region</b>	<b>August 15, 2015</b>	<b>Cumulative for Response*</b>
Private Drinking Water Wells	Region 8	35	167
	Region 6	15	170
	Region 9	0	0
Surface Water Samples	Region 8	7	103
	Region 6	9	82
	Region 9	18	88
Sediment Samples	Region 8	0	39
	Region 6	14	108
	Region 9	18	64

\*Note: Cumulative totals include field samples and QA/QC samples

### 1.2 Water Distribution and Transportation Branch

Area Command continues to monitor potable water, agricultural water, and agricultural food deliveries. These activities are summarized below.

**Table 2 □ Public Support Summary**

Activity	Region	August 15, 2015		Cumulative	
		Deliveries	Quantity*	Deliveries	Quantity*
Potable Water Deliveries	Region 8	0	0	16	134,200
	Region 6	0	0	0	0
	Region 9	0**	0**	0**	0**
Livestock / Agricultural Water Deliveries	Region 8	2	18,700	45	132,530
	Region 6	7	151,578	44	1,013,115
	Region 9	13	208,000	27	418,000
Agricultural Food Deliveries	Region 8	0	0	0	0
	Region 6	0	0	0	0
	Region 9	0	0	1	384

Notes: NR- Not reported.

\* Water quantities are reported in gallons, food quantities are reported in bales of hay.

\*\*Water deliveries in Region 9 are being handled by the Navajo Tribal Utility Authority.

### 1.3 Community Engagements

Community engagements reported for August 15, 2015 are presented below:

**Table 3 - Community Engagement Summary**

August 15, 2015		
Community Engagements	Region 8	0
	Region 6	0
	Region 9	1

## 1.4 Anticipated VIP / Congressional Visits and Public Events

Upcoming anticipated Site visits and public events are summarized below.

**Table 4 □ Anticipated Site Visits and Public Events Summary**

Unit	Planned Event	Anticipated Date
Area Command	Logistics support of OSWER evaluation team.	8-17-2015 to 8-18-2015
	Logistics support of State officials from CO, UT.	8-17-2015
Region 8	Site visit by EPA Region 8 Officials	August 17, 2015
	□Durango is Back□Public Event	Tuesday, Aug. 18 <sup>th</sup> , 2015
Region 6	None reported.	N/A
Region 9	EPA meeting with Mexican Water, Red Mesa, and Tec Nos Pas chapters of Navajo Nation.	8-16-2015
	Meeting between Farmington IC and Window Rock representatives	8-16-2015

## 1.5 Community Relations Branch

EPA National Call Number (844-607-9700)- On August 15<sup>th</sup>, the EPA National call number received **7** calls (3 calls for Region 8, 2 calls for Region 6, and 2 calls for Region 9). As of August 15<sup>th</sup>, 2015, the national call number has received a total of **136** calls.

EPA Region 8- On August 15, 2015, their regional call center received **14** calls. As of 5:00 pm on August 15, 2015, their regional call center (970-385-8700) had received a total of **722** calls.

EPA Region 6- On August 15, 2015 the toll-free call-in number received **5** inquiries. To date, EPA Region 6 has received **122** calls.

EPA Region 9- On August 15, 2015, their call center received **4** calls.

## 2.0 Drinking Water System Impacts

Drinking water systems affected by the response as of August 15, 2015, and their status are summarized below:

**Table 5 □ Public Support Summary**

<b>Region</b>	<b>Number of Affected Water Systems</b>	<b>Population</b>	<b>Status</b>
Region 8	0	0	All systems currently in operation.
Region 6	8	80,392	All systems currently in operation.
Region 9	0	0	All systems currently in operation.

### 3.0 Finance

#### 3.1 Estimated Response Costs to Date

Estimated total costs for the response as of August 16, 2015 are summarized below:

**Table 6 □ Estimated Response Costs Reported as of August 16, 2015**

<b>REGION</b>	<b>EPA CUMULA EXPENDED PAYROLL</b>	<b>EPA CUMULA EXPENDED TRAVEL</b>	<b>EPA CUMULATIVE OTHER CHARGES</b>	<b>CUMULATIVE CONTRACT COST</b>	<b>TOTAL CUMULATIVE COSTS</b>
<b>EPA REGION</b>	\$490,459	\$52,250	\$0	\$589,415	\$1,132,124
<b>EPA REGION</b>	\$148,170	\$38,700	\$68,855	\$972,528	\$1,228,253
<b>EP REGION</b>	\$129,600	\$33,750	\$0	\$428,588	\$591,938
<b>TOTAL</b>	<b>\$768,229</b>	<b>\$124,700</b>	<b>\$68,855</b>	<b>\$1,990,531</b>	<b>\$2,952,315</b>

### 3.1 Estimated Burn Rates

Estimated burn rates are summarized below:

**Table 7 □ Estimated Burn Rates as of August 16, 2015**

REGION			ESTIMATED BURN	DAILY RATE
EPA	REGION	8		\$141,516
EPA	REGION	6		\$136,473
EPA	REGION	9		\$65,771
TOTAL	DAILY	BURN		\$343,760

### 4.0 Participating Entities

Federal, regional, local and other participating entities participating in the response are summarized below.

#### Region 8

US EPA  
USFWS  
US Coast Guard  
ERT  
Colorado OEM  
Southern Ute Tribe  
La Plata County  
San Juan County  
Colorado Department of Public Health and Environment (CDPHE)  
Southwest IMT  
City of Durango  
Durango Fire Department  
San Juan County Health Department

#### Region 6

US EPA  
USFWS  
NMED  
ATSDR

NM Department of Health  
 NM Office of the State Engineer  
 NM Department of Game and Fish  
 County of San Juan ☐ New Mexico

### **Region 9**

US EPA  
 US Coast Guard  
 Navajo Nation

## **5.0 Personnel On-Site**

Staffing numbers for the federal entities and agencies active in the response are summarized below.

**Table 8 - Personnel On-Site as of August 15, 2015**

<b>Region</b>	<b>Agency / Entity</b>	<b>Number of Personnel</b>
Area Command	U.S. EPA	13
	US. EPA Contractors	2
	U.S. Coast Guard	3
EPA Region 8	U.S. EPA Region 8	44
	US. EPA Region 8 Contractors	32
	U.S. Coast Guard	3
	Other Federal, State, Local, and Tribal Entities	68
EPA Region 6	U.S. EPA Region 6	30
	US. EPA Region 6 Contractors	37
	U.S. Coast Guard	0
	Other Federal, State, Local, and Tribal Entities	Not Reported
EPA Region 9	U.S. EPA Region 9	8
	US. EPA Region 9 Contractors	13
	U.S. Coast Guard	8
	Other Federal, State, Local, and Tribal Entities	2
<b>Total</b>		<b>263</b>

## **6.0 Source of Additional Information**

For additional information, refer to [www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine)



**ATTACHMENT 1**  
**PRESS RELEASES**

**EPA Statement on New Mexico Reopening Drinking Water Systems and Recreational Use on the Animas and San Juan Rivers (August 15, 2015)**

New Mexico announced its determination that drinking water systems and recreational activity along the Animas and San Juan rivers can resume based on water quality sampling results collected by both New Mexico Environment Department and the EPA.

Reopening drinking water system intakes and allowing recreational activities is a state and local decision and we believe they have taken appropriate steps in arriving at this this decision. EPA sampling results from the river collected last week similarly show that water quality conditions are returning toward pre-event conditions.

We know the state has gone through a deliberative process in making this decision. EPA will continue to sample, analyze, and make data available to support local decision makers moving forward to allow them to make the best informed decisions.

## Menu



# Frequent Questions Related to King Gold Mine Response

On this page:

- Impacts on Human Health and the Environment
- Accountability

## How did this happen?

On August 5, 2015, EPA was conducting an investigation of the Gold King Mine near Silverton, Colorado, to:

- assess the on-going water releases from the mine,
- treat mine water, and
- assess the feasibility of further mine remediation.

While excavating above the old adit (a mine tunnel), pressurized water began leaking above the mine tunnel, spilling about three million gallons of water stored behind the collapsed material into Cement Creek, a tributary of the Animas River.

## What is the total volume discharged on August 5?

The spill volume associated with the release on August 5 is calculated to be approximately three million gallons based on flow rates. Current discharge rates from the mine are averaging around 600 gallons per minute. For context, there are multiple mines along the upper Animas, and historically there has been considerable discharge at each mine site. The Red and Bonita Mine, just below Gold King Mine, is currently discharging about 300 gallons per minute.

## Where is the leading edge of the plume?

There is no longer a visible leading edge of the Gold King Mine plume. We estimate that the water associated with the release reached Lake Powell sometime on Wednesday afternoon August 12. Lake Powell is a large body of water, and we expect no significant impacts to the lake, the Colorado River or any water bodies downstream.

## What is EPA doing to respond?

EPA has deployed a large response team to Durango and Silverton, Colorado and to several locations in New Mexico, Utah and the Navajo Reservation to coordinate with affected states, tribes and communities on various response activities and to address impacts associated with the Gold King Mine wastewater release.

EPA's primary objectives include working with federal, state, tribal and local authorities to make sure that people continue to have access to safe drinking water, ensure appropriate precautions are in place for recreational use and contact with river water, evaluate impacts to aquatic life and fish populations, and stop the flow of contaminated water into the watershed at the Gold King Mine site.

### **What work is happening at the site right now?**

As water exits the mine, the water flows into a system of four treatment ponds. The treatment ponds provide retention time to allow the addition of lime to neutralize the pH. Substances to treat water are added during the process to settle the metals to the bottom of the retention ponds. One additional retention pond is being added to the treatment system to allow crews to manage the solids that has settled out to date. This additional pond will allow the treatment system to maintain efficiency as the crews are managing the existing ponds. A water treatment system will be installed on site as part of short-term actions for water treatment. Planning is in place for a treatment solution that includes pipes to allow the mine water to flow to a lower mine site with a better location for water treatment to continue into the fall. Longer-term treatment needs and options are being evaluated.

### **Is EPA currently conducting sediment sampling? If so, when does the agency expect to make those results available?**

We are conducting sediment testing in Colorado, New Mexico, Navajo Nation, and Southern Ute Nation. New results are posted on EPA's website on an ongoing basis.

### **Are you considering making this a Superfund site?**

The Gold King Mine site has never been proposed to be listed on the National Priority List (NPL). At this time we haven't received any requests from the governor to propose listing this site on the NPL, which we look for as part of the agency's policy and practice.

### **What is the process EPA goes through to release water quality data?**

EPA is working around the clock to collect and analyze water quality information in order to develop a comprehensive picture of water quality at various locations over time. This is a massive task and it is critical to make sure we are doing all we can to develop the sound science that will support recommendations and decisions that protect the public.

This is a time-consuming process. We are looking to develop and evaluate a full picture of the release event and water quality conditions before, during and following the movement of the plume downstream. EPA is sampling water at several locations in the Animas and San Juan Rivers for a suite of metals and contaminants. The lab work and quality assurance process for generating these data is extensive and designed to make sure we can have confidence in our results. This effort is generating thousands of data points, which must be analyzed by our scientists, placed in the context of other data collected, assessed for trends.

EPA also must evaluate the full set of data collected through the past few days and develop an understanding of the concentrations of metals that were deposited in sediments on the river bed and banks. This analysis will ensure that any recommendations about reopening drinking water intakes and reopening

the river for recreational use are based on the science and the process we use to assess risk and ensure public health.

### **What do the data indicate? What does this mean for the long-term?**

EPA is collecting and assessing water quality from the Animas and San Juan Rivers daily. The La Plata County Sheriff lifted the recreation use ban on the Animas River on Friday, August 14. The water quality data we have analyzed thus far continues to be encouraging and point to minimal short-term risks associated with the plume and a return to pre-event baseline conditions in the Animas River in Colorado. In the San Juan River, data indicate the plume dissipated as it traveled downstream, and samples show a smaller rise in acidity and metals levels in the river compared to those in the Animas River. Further downstream, data suggest slight impacts as the plume dissipated and no leading edge was visible. While we are taking samples in Lake Powell near the San Juan River inflow, we expect no adverse impacts to the lake or other locations downstream from the lake.

While this information is encouraging, we need to thoroughly evaluate the full set of data collected over the past few days and develop an understanding of metals levels in water and in sediment deposited in the river before making recommendations. EPA is working with our partners to review all data collected to develop a comprehensive picture of water quality conditions in the river and in the plume itself. This will ensure our decisions are based on sound science.

Our longer-term concern is the effect on the entire watershed of metals deposited in sediments and their release during high-water events and from recreational use over time. These sediments may pose some risk, especially to aquatic life and fish. Because we have been working to assess impacts to water quality in the Animas River for several years, we have good information and data on background conditions in the river. EPA will use this information to assess long-term needs and evaluate our progress in restoring the waters impacted by the Gold King Mine release.

### **From a scientific perspective, what contaminants have been found and at what concentrations?**

Data are posted at <http://www2.epa.gov/goldkingmine> as they become available.

## **Impacts on Human Health and the Environment**

### **What are the health risks?**

Based on the data we have seen so far, EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) do not anticipate adverse health effects from exposure to the metals detected in the river water samples from skin contact or incidental (unintentional) ingestion. Similarly, the risk of adverse effects to livestock that may have been exposed to metals detected in river water samples from ingestion or skin contact is low. We continue to evaluate water quality at locations impacted by the release.

Although the pH levels in the Animas River between Cement Creek and Durango have returned to baseline levels, washing with soap and water after contact with untreated river water is always sound public health practice. This will minimize exposure to any metals that may be present. We are still reviewing data on pH levels in the San Juan River and will release those as soon as they have been validated.

## **What is the impact on agriculture?**

We are certain that crops are safe for consumption. When the plume came through, irrigation ditches that impacted crops and livestock were shut down. Water quality data we have seen indicate no harmful effects on any agricultural products. Ground water and tap water have both been tested and have returned to pre-event conditions.

## **How do I know if my drinking water is safe?**

In New Mexico: On August 14, 2015 New Mexico Environment Department lifted the ban on the use of private domestic water wells. On August 15, 2015 New Mexico Environment Department lifted the ban on San Juan County's drinking water system supplied by the Animas and San Juan Rivers.

In Colorado: On August 14, 2015 the city of Durango resumed pumping raw water for drinking water treatment and distribution.

## **What about wildlife and fish?**

The assessment of impacts to wildlife and fish populations in both the Animas and San Juan Rivers is ongoing but information gathered to date is promising. EPA is working with the State of Colorado Division of Parks and Wildlife (CPW), the New Mexico Department of Game Fish, the Navajo Nation and the U.S. Fish and Wildlife Service to investigate reports of impacts to wildlife.

- There were no fish kills along the Animas River during the plume event. Biologists walked and paddled the river looking for dead fish. There was also no evidence of scavenging by birds or other mammals.
- No effects were seen on terrestrial animals — ducks, mammals, etc. Ducks have been seen back on the river since Monday, Aug. 10.
- Colorado Parks and Wildlife biologists placed fingerling rainbow trout in the Animas River in Durango the afternoon of Aug. 6 before the mine-spill plume reached the city. 108 fish were placed at three separate locations in cages. Young fish known as fingerlings were used because they are most sensitive to environmental changes. One fish died, but not due to water quality. The fish remained healthy throughout the event and afterwards. They were removed from the river on Aug. 11.
- After being removed from the river the fish were frozen and taken to Denver, where they will be tested for toxicity by the Colorado Department of Health and Environment. Scientists will be looking for deposits of metals in tissue and organs. Those results will not be known for at least two weeks.
- During the week of Aug. 24, CPW biologists will fish the Animas River in Durango to check on populations of wild fish — sculpin, suckers, rainbow trout and brown trout. Some of those fish will also be sent to Denver for testing.
- The Animas River has been affected by acid mine run-off for decades and that has been detrimental to fish populations for many years. CPW has seen a noticeable decline in the number of trout in the river for the last 10 years. There are very few fish found from Silverton to Baker's Bridge. The bridge is located about 10 miles north of Durango.

While this information is encouraging in terms of short-term impacts to fish, we will be evaluating long-term impacts associated with exposure to the plume and the impacts of deposited sediments over time. EPA will be working with the States of Colorado, New Mexico and the Navajo Nation to evaluate these

and other ecological impacts as we move forward.

## **Accountability**

### **What is EPA doing to make sure this doesn't happen again?**

EPA has worked successfully to address environmental concerns at hundreds of abandoned mine sites across the West. EPA will thoroughly investigate this incident, and it is committed to applying all lessons learned to its work as it moves forward.

While EPA continues to investigate the root causes of the release of mining waste at the Gold King Mine, all EPA regional offices will immediately cease any field investigation work at mines, including tailings facilities. EPA is in the process of initiating an independent assessment by a sister federal agency or another external entity to examine the factors that led to the Gold King Mine incident. Based on the outcome from that assessment, EPA will determine what actions may be necessary to avoid similar incidents at other sites.

While EPA stops work on existing field investigations and assessments at these mining sites, EPA also is instructing its regional offices to identify existing sites with similarities to the Gold King Mine site, to identify any potential immediate threats and to consider appropriate response actions.

### **Who, specifically, is responsible for the release?**

A Colorado-based EPA team was working at the site with a response contractor and the State of Colorado's Division of Reclamation, Mining and Safety. For EPA Administrator Gina McCarthy's remarks on agency responsibility, go to <http://www2.epa.gov/goldkingmine>.

### **Will anyone be fired as a result of this incident? If so, who?**

EPA and external entities will be thoroughly investigating the full facts regarding this incident and the response, and the agency will respond based on that information.

Last updated on August 16, 2015

## Menu



# Gold King Mine Resources & Information

## General

- **EPA.gov/goldkingmine:** Please visit this site for up-to-date sampling and testing data, and EPA actions.

## Contractor information

- If you are interested in becoming involved in the response as a contractor, please contact us to submit your name, email, and information.

## Technological solutions information

- If you are interested in submitting your ideas for cleanup or a technological solution, please contact us to submit your name, email, and information.

# State-specific or local resources & information

## General

- **La Plata County Emergency:** Please visit the La Plata County website for up to date county information and news.

## Health

- **San Juan Basin Health Department:** Current health advisories and information.
- **Rocky Mountain Poison and Drug Center:** 800-222-1222.
- **Colorado Department of Public Health & Environment:** Visit this site for state health information.

## Tribal

Southern Ute Hotline: 970- 563-5025

## Water

- **Drinking Water Information:** 970-385-8700. Currently, bottled drinking water is available for pickup



between the hours of 7 AM - 7 PM.

- Agricultural water/resources contact: 970-385-8700.
- Ditch flushing information: Visit <http://www.co.laplata.co.us/emergency> for the most up to date information.

## **Recreational**

- Lake Powell: Contact the Utah Department of Health at 801-538-6003.

## **Volunteer information**

Please contact the following organizations if you ☐ like to volunteer:

- Animas-La Plata Water Conservancy District (970) 247-2659
- Animas Conservancy (970) 259-0522
- Animas River Keeper (970) 259-2510
- La Plata Open Space Conservancy (970) 259-3415
- Mountain Studies Institute (970) 247-7071
- The San Juan Citizens Alliance (970) 259-3583
- The San Juan Mountains Association (970) 385-1210
- Sierra Club, Weminuche Group (970) 247-8811

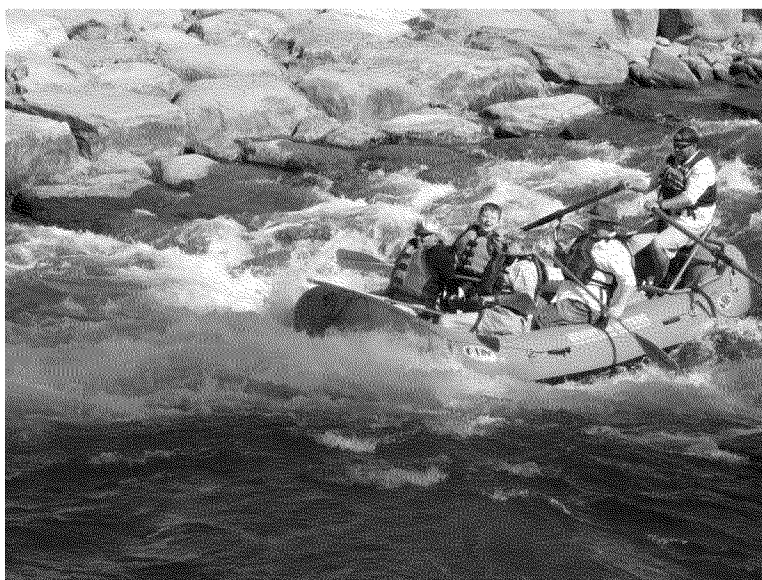
Last updated on August 15, 2015

**ATTACHMENT 2**  
**REGIONAL SITUATION REPORTS**

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
2015 Gold King Mine Release SITREP**



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 8**



**Subject:** Situation Report #8  
Gold King Mine Release  
San Juan County, CO  
Latitude: 37.8945 Longitude: -107.6384

**From:** Durango Unified Command (Situation Unit)

**Date:** 08/16/2015

**Reporting Period:** 08/15/2015 through 08/15/2015

**Website:** <http://www2.epa.gov/goldkingmine>

New information included in the SITREP is in bold text.

## Executive Summary

On August 5, while investigating the Gold King Mine in Colorado, an EPA cleanup team triggered a release of mine wastewater into Cement Creek. The EPA is working closely with responders and local, state and tribal officials to monitor water contaminated by the release. The release's path flows through three of the EPA's regions - Region 8 (Colorado, Utah, Southern Ute Indian Tribe lands, and Ute Mountain Ute Tribe lands); Region 6 (New Mexico), and Region 9 (Navajo Nation). The EPA has activated its Emergency Operations System to ensure coordination among its regions, laboratories and national program offices in Washington, D.C. A Unified Command has been established in Durango CO, which includes the EPA, State of Colorado Office of Emergency Management (OEM), Southern Ute Indian Tribe, La Plata County, and San Juan Basin Health Department. The Ute Mountain Ute Tribe is an Administrative Agency in the UC. The EPA has established an Area Command in Durango CO, and that covers the Incident Command Post (ICP) Colorado (Colorado Unified Command), ICP New Mexico (New Mexico Unified Command), and the ICP South West (South West Unified Command).

### Highlights, Key Updates/ Changes:

- **Public Information Officer (PIO) assigned to Silverton / San Juan County bringing the count to two PIOs in Silverton.**
- **Southern Ute Indian Tribe held a public meeting on Saturday, August 15, 2015. The Tribe Unified Commander reported that the meeting was positive.**
- **All irrigation ditches are open and available for use.**
- **The community meeting originally scheduled for the afternoon of 8/16/15, was cancelled on 8/15/15, despite mis-information on 8/16/15 that the meeting was being held.**

## 1. Introduction

### 1.1 Background

Site Number: A8K9RV

Contract Number:

D.O. Number:

Action Memo Date:

Response Authority: CERCLA

Response Type: Emergency

Response Lead: EPA

Incident Category:

NPL Status: not listed

Operable Unit:

Mobilization Date: 08/05/2015

Start Date: 08/05/15

Demob Date: TBD

Completion Date:

CERCLIS ID:

RCRIS ID:

ERNS No.:

State Notification: 08/05/15

On August 6, 2015 the La Plata County Sheriff issued an order closing the river to all watercraft. The Sheriff reopened the Animas River to recreational use at 12:00 pm on Friday August 14, 2015. The decision was made in conjunction with the San Juan Basin Public Health Department, the Colorado Department of Public Health and Environment (CDPHE) and the EPA. The Sheriff's

order reopening the river was accompanied by a Health Advisory from San Juan Basin Health Department and CDPHE, which provides additional information to recreational users of the river.

At 2 pm on Friday, August 14 2015, the City of Durango resumed pumping water from the Animas River for further treatment. This decision was made in conjunction with the CDPHE. The City will continue to analyze water quality samples, based on pre-established protocols. The City has also lifted the outdoor irrigation restrictions, and encourages responsible outdoor irrigation.

#### **1.1.1.1 Incident Category**

#### **1.1.2 Site Description**

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine has a continuous discharge of acidic mine drainage that is a significant contributor of manganese, zinc, copper, and cadmium into the Cement Creek drainage of the Animas River watershed. The Gold King Mine has not had maintenance of the mine workings since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed.

The EPA Region 8 has been investigating the conditions to assess the on-going releases and incremental de-watering and removal of blockages to prevent blowouts.

**1.1.2.1 Location** - San Juan County, Colorado, La Plata County, Colorado, Southern Ute Indian Reservation and Ute Mountain Ute Tribe reservation.

#### **1.1.2.2 Description of Threat**

Mine waste water was released into Cement Creek and the Animas River. The volume of the release based on US Geological Survey (USGS) Cement Creek gaging station is estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah.

The leading edge of the release passed through Durango, Colorado, on Friday, August 7, 2015, and on August 8, 2015, it crossed the border into New Mexico where it eventually discharged into the San Juan River.

#### **1.1.3 Site Inspection Results**

Aerial and ground reconnaissance indicates that the plume associated with the Gold King Mine release has dissipated downstream and there is no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell.

The EPA is collecting samples and assessing water quality from Cement Creek and the Animas daily. Water sampling is occurring, and pH levels and dissolved concentrations of metals are being monitored.

## **1.2 Incident Objectives**

- Continue sampling plan and develop strategy to evaluate and mitigate risks due to sediment in the river.
- Continue river assessment through water sampling.
- Effectively communicate with public and stakeholders utilizing a multi-faceted communication strategy to disseminate results.
- Ensure health and safety of the public and response management personnel.
- Develop a means to assess the economic impact upon affected communities
- Continued coordination with the Department of Agriculture (including state and local veterinarians) and the Colorado Extension.
- Continue management of adit discharge.
- Maintain stability of mine road to ensure access.
- Prepare for mine dump stabilization.
- Amend field sampling plan to include assessment of remote areas of the canyon by Tuesday 8/18/2015
- Roll current well sampling effort into interim shallow groundwater monitoring plan currently under development. Communicate private well results and other follow up action within 96 hours of sampling.
- Develop a demobilization plan for next operational period.
- Long term planning for mine ops for Silverton and San Juan County (including community outreach).
- Implement medium term river monitoring plan with contractor per their scope of work
- Ensure the coordination of CDPHE's notification system with monitoring contractor to implement event specific sampling.

## **1.3 Critical Resource Needs**

All resources are being tracked by the Resources Unit. Resources for the response continue to be ordered as needed to fill critical resource needs.

## **1.4 Strategic Considerations**

United group of subject matter experts to advise policy makers.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Response Actions to Date**

A Colorado Unified Command (UC) post in Durango was established. The UC includes EPA, State of Colorado Office of Emergency Management (OEM), Southern Ute Indian Tribe, La Plata County, and San Juan Basin Health Department. The Ute Mountain Ute Tribe and San Juan County CO are also in regular communication with Unified Command. The EPA Regions 6 and 9

have established incident command posts in Farmington, New Mexico that cover New Mexico and the Navajo Nation response areas. A JIC was established and is providing support for both the UC and the AC.

The EPA continues taking daily residential well sampling as requested and Animas River water quality sampling at seven locations. Sediment samples on 8/14/2015 were taken from the intake of Animas-La Plata project for the Nighthorse Reservoir. **The EPA sample count by media for 8/15/2015 is provided in the following table:**

Count of Samples as of 8/15/15			
Matrix	SampleDate	Number of Samples Collected	SampleType
Potable Water	8/15/2015	33	Field Sample
Surface Water	8/15/2015	7	Field Sample

**Call center totals are provided in the following table:**

	8/15	To Date Total
Well Water Test Scheduling	6	338
Water Concerns	4	104
Health Concerns	0	31
Recreation	0	20
Ecological Concerns	0	17
Livestock/Irrigation	2	19
Tourism/Media	0	52
Volunteer Offers	0	21
General Concerns	1	120
<b>Daily Totals:</b>	14	722

**Total calls received at the Call Center through Saturday, 8/15/2015 is 722.** The call center is being integrated into the UC Joint Information Center (JIC) as of 8/15/2015.

Bottled water is available at the UC/AC facility for pickup by community members.

**As of 8/15/2015 all irrigation ditches were open and available for irrigation use.**

**Non-Potable water distribution as of 8/15/2015:**

**Total deliveries: 45 (repeat deliveries)**

**132,530 Gallons**

**There will only be two deliveries scheduled for Sunday 8/16/2015. It is anticipated that these will be the last deliveries for non-potable water.**

**Stakeholders:**

- **1 Cattle & Horse Farm**
- **1 Nursery**

- One operation, we have set up pumping and filtration from river to fill fish ponds at Little Fishes LLC.

**Potable Water Delivery as of 8/15/2015:**

**Total Deliveries: 16 (Repeats)**

**No New Deliveries.**

**134,200 gallons**

**As of Sunday 8/16/15 deliveries will be made to three locations.**

**Stakeholders:**

- **Single Family Home cisterns.**
- **Multiple family homes on neighborhood cistern.**

**1120 cases of bottled water have been purchased to hand out to community.**

The CDPHE, and public water systems regulated by CDPHE in the impacted area, are taking raw and finished water samples to monitor water quality. City of Durango in coordination with CDPHE resumed pumping water from the Animas River for their water treatment plant on 8/15/2015.

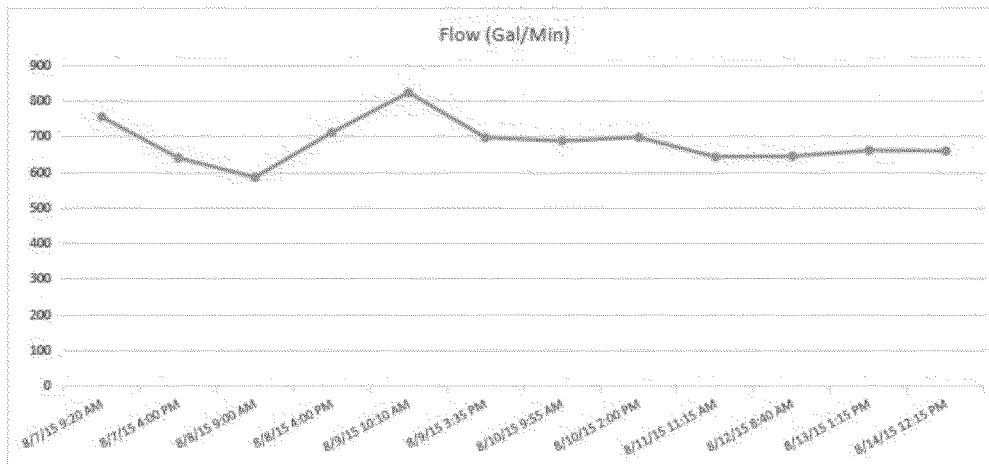
CDPHE has staff in area and continued collecting the Animas River surface water and sediment sampling. Also continued outreach to public water supply system operators.

#### **Gold King Mine Site**

The EPA continues to operate four treatment and sedimentation ponds at the mine site which are treating water by lowering acidity levels and removing dissolved metals. A technical expert from CDPHE is assisting at the Gold King Mine site in optimizing the water quality treatment system.

Flow from the mine through the morning of 8/14/2015 is shown in the following chart. The flow chart will be updated for the next SITREP. **The treatment pond effluent pH on the afternoon of 8/13/2015 was 4.95.**





Treated water from the last treatment pond is discharging into Cement Creek. Flow data out of the mine is being collected manually two times per day. Water quality data is being collected at the influent and effluent of the treatment system as well.

### 2.2.1 Anticipated Activities

Sampling of the seven data points on the river will continue. **The EPA will be conducting well water sampling as needed.**

**The EPA will be conducting property assessments and mitigation as needed.**

### 2.2.1.2 Next Steps

### 2.2.2 Issues

## 2.3 Logistics Section

The call center was relocated from the Durango communications center to the JIC.

Due to logistical needs of the JIC assuming the call center function, the AC and JIC will trade facilities locations on 8/16/2015.

## 2.4 Finance Section

Finance will be transitioning a new person in starting Monday to take over the lead EPA finance role.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

On Saturday 8/15/2015, Safety officers from both Area Command and Unified Command were able to visually assess the mine operations. As activities progress, there will also be an increase in probability of occurrence and severity for serious injury. Anyone visiting or responding to the mine is reminded to have a heightened sense of awareness of their surroundings, and to recognize and evaluate their position and situation. Personal Protective Equipment is required at the mine so please see your safety officer prior to departure.

### **2.5.2 Liaison Officer**

No report.

### **2.5.3 Information Officer**

Starting on Sunday 8/16/2015, there will be two PIOs in Silverton to support the mine site work.

There is a community event planned for this week. The announcement for this is attached to this SITREP.

Social Media Sites being maintained buy the UC JIC through local and state resources are:

Blog – [goldkingminerelease.blogspot.com](http://goldkingminerelease.blogspot.com)

FB – [facebook.com/goldkingminerelease](https://facebook.com/goldkingminerelease)

Twitter - @GKMRelease

YouTube Channel – Gold King Mine Release

### **2.5.4 Weather Forecast**

Weather forecast for August 17, 18 and 19, 2015:

#### **DURANGO AREA**

##### **Monday Aug 17**

A 20 percent chance of showers and thunderstorms after 10am. Mostly sunny, with a high near 89. North northeast wind 5 to 10 mph becoming west in the afternoon.

##### **Monday Night**

Partly cloudy, with a low around 53. West wind 5 to 10 mph becoming north after midnight.

##### **Tuesday Aug 18**

Mostly sunny, with a high near 85. Breezy, with a north wind 10 to 20 mph becoming west southwest in the afternoon. Winds could gust as high as 30 mph.

##### **Tuesday Night**

Mostly clear, with a low around 48.

##### **Wednesday Aug 19**

Sunny, with a high near 83.

##### **Wednesday Night**

Mostly clear, with a low around 50.

## **SILVERTON AREA**

### **Monday Aug 17**

A 50 percent chance of showers and thunderstorms, mainly after 10am. Partly sunny, with a high near 69. West wind 5 to 15 mph.

### **Monday Night**

A 30 percent chance of showers and thunderstorms before midnight. Partly cloudy, with a low around 43. West northwest wind 5 to 10 mph.

### **Tuesday Aug 18**

A 20 percent chance of showers and thunderstorms. Mostly sunny, with a high near 65. Breezy, with a northwest wind 10 to 15 mph increasing to 15 to 20 mph in the morning. Winds could gust as high as 30 mph.

### **Tuesday Night**

Mostly clear, with a low around 38.

### **Wednesday Aug 19**

Sunny, with a high near 67.

### **Wednesday Night**

Mostly clear, with a low around 40.

## **3. Participating Entities**

### **3.1 Area Command**

The AC includes EPA Regions 6, 8 and 9, through the three unified commands: Colorado UC, New Mexico UC, and South West UC. The EPA Region 6 is working closely with the New Mexico Environment Department (NMED) and the EPA Region 9 is working with the Navajo Nation. The AC is completing daily Executive Summary updates on AC activities.

### **3.2 Unified Command and Cooperating Agencies**

The UC includes EPA, State of Colorado Office of Emergency Management (OEM), the Southern Ute Indian Tribe (SUIT), La Plata County, and San Juan Basin Health Department. The Ute Mountain Ute Tribe will likely join during the next operational period.

**The SUIT continues water delivery and will be sampling one additional private tribal drinking water well on 8/16/2015. As a proactive measure, the SUIT is installing reverse osmosis on tribal residential kitchen taps. If well sampling results show any concerns, additional actions will be taken.**

The City of Durango and the Ute Mountain Ute Tribe are involved through via their agency representatives. San Juan County is an Agency Administrator.

The EPA Region 8 is coordinating with Agency for Toxic Substances and Disease Registry (ATSDR) in response to public health concerns/questions associated with the mine waste plume. ATSDR has been in communication with local health officials at San Juan Basin Health Department and San Juan County Public Health in Colorado. Public health questions should be directed to these local public health organizations.

#### 4. Total Personnel On Incident

Gold King Mine Release 2015	
	08/15/2015
Group	Number
EPA @ REOC	0 (24 on call 8/15)
Contractors @ REOC	1
EPA in Field (R8)	20
Contractors in Field (R8)	30
EPA Laboratory	0
Contractors Laboratory	0
USCG	3
ERT	1
<b>Subtotal EPA Region 8 Resources</b>	<b>79</b>
Colorado OEM	3
Southern Ute Tribe	6
La Plata County	15
San Juan County	3
CDPHE	10
Southwest IMT	6
City of Durango	12
Durango Fire	2
San Juan Basin Health Dept.	5
Ute Mountain Ute Tribe	1
US Bureau of Reclamation	1
US Bureau of Indian Affairs	1
Grand Junction Fire	1
Mountain Studies Institute	1
ATSDR	1
<b>Total</b>	<b>147</b>

**Personnel working at the Colorado (Durango) Unified Command Post on 08/15/15  
(Does not include Area Command Personnel):**

<b>Position / Section</b>	<b>Number of Personnel</b>
Unified Command	8
PIO	9
Safety	2
Operations	2
Planning (incl SITL, ENVL & RESL)	8
Logistics	4
Finance	1
Liaisons	4
Agency Representatives/Administrators	1
<b>Total</b>	<b>39</b>

**5. Definition of Terms –**

ATSDR= Agency for Toxic Substances and Disease Registry

EPA = United States Environmental Protection Agency

CERCLA = Comprehensive Environmental Responsibility, Compensation and Liability Act

CDPHE = Colorado Department of Public Health and Environment

USGS = United States Geological Survey

UC = Unified Command (Comprised of Southern Ute Indian Tribe, La Plata County, San Juan  
Basin Health Dept, EPA, State of Colorado OEM)

UCP = Unified Command Post

AC = Area Command (Comprised of EPA Regions 6, 8 and 9)

NMED = New Mexico Environment Department

BIA = Bureau of Indian Affairs

BOR = Bureau of Reclamation

COEM = Colorado Office of Emergency Management

CDPW = Colorado Department of Parks and Wildlife

SWIMT = South West Incident Management Team

MCL=Maximum Contaminant Levels

MSDS = Material Safety Data Sheet

PPE = Personal Protective Equipment

USCG = United States Coast Guard

ERT = EPA Emergency Response Team

REOC = EPA Regional Emergency Operations Center

**6. Additional sources of information – <http://www2.epa.gov/goldkingmine>**

## **Attachment: Community Event Information**

Event: Love the Animas

Joining in and supporting the Event "Durango is back - River and Bike Parade", Mild to Wild wants to show our love for the #AnimasRiver and our appreciation for the community support.

In celebration,

1. We have 2 boats reserved for local officials and media. Please call Mild to Wild to reserve your seat (970.247.4789).
2. We are also donating 40 seats in rafts to the 1st 40 reservations. To reserve your seat: <http://bit.ly/1ffVXLs>
3. We will be facilitating private boaters and help manage congestion by providing people shuttles. We will be making loops from Four Corners & Santa Rita Park to 32nd or 29th Street from 4:30pm-5:30pm and 7:30-8:30pm.

Thanks again for all your love and support. The Animas River really is the heart of Durango and impacts us in more ways than most of us thought! If you have your own boat, the parade starts at 5:30 pm. If you prefer to show your support via the riverside bike path, join in by foot or bike. Let's show the world how beautiful Durango is, how lucky we are to live here and what a beautiful recreational and adventure waterway the #AnimasRiver is.

Date: Tuesday, August 18th

Time for event "Durango is back - River and Bike Parade: 5:30 pm at 32nd, 29th or anywhere on the bike path.

Meet time for Mild to Wild's Raft Trip "Love the Animas", join us at Mild to Wild at 4:45pm.

Post parade: Head downtown to support our businesses there!

**Spread the word! #AnimasRiver #LoveRiver #VisitDurango #LoveTheAnimas**

**Molly Mickel**

P: 970.247.4789

Explore. Experience. Escape.  
And Always, Live with Adventure!

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**U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Gold King Mine Spill - Region 6**



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region VI**

**Subject: POLREP #9  
Gold King Mine Spill - Region 6**

**Various New Mexico locations, NM  
Latitude: 36.8374600 Longitude: -107.9916800**

**From: Ronnie Crossland, Region 6 Regional Incident Commander (RIC)**

**Date: 8/16/2015**

**Reporting Period: 8/15/2015 0700 – 8/15/2015 1900**

## **1. Introduction**

### **1.1 Description of Threat**

Region 8 reported approximately three million gallons of mine waste water was released into Cement Creek and the Animas River. The primary environmental concern is the pulse of contaminated water containing sediment and metals flowing as an orange-colored discharge downstream through Durango, Colorado, and into New Mexico and Utah.



## 1.2 Preliminary Removal Assessment/Removal Site Inspection Results

Water monitoring and sampling is ongoing at public water supply intakes and private wells and field pH levels and other water quality parameters are being monitored.

## 2. Current Activities

Headquarters has established a joint website at [www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine).

Created a new general public call-in number for Regions 6, 8, and 9: 844 – 607 – 9700.

## 2.1 Operations Section

New Mexico announced its determination that drinking water systems and recreational activity along the Animas and San Juan rivers can resume based on water quality sampling results collected by both New Mexico Environment Department and the EPA. New Mexico plans to open the River at 2000 MDT August 15, 2015.

At the August 14, 2015, community meeting, Secretary Flynn announced that the State would begin ditch flushing that night. Ditch operators began flushing the ditches at 1900 MDT on August 14, 2015.

The August 7-10, 2015, surface water sampling data is now available on the Gold King Mine website: <http://www2.epa.gov/goldkingmine/gold-king-mine-data-august-13-2015>.

### Toll-Free Number Activity

	8/15/15	Total to Date
Total Calls Received	5	122
Calls Concerning R6	1	49
Calls Returned by R6	13	49

### Private Drinking Water Well Sampling

In addition to the private water well samples taken as listed below, an additional five samples from the Southside and Flora Vista public water supply wells were taken as requested by the water systems.

Date	Number of Private Wells Sampled
8/10	10
8/11	31
8/12	23
8/13	0 New Locations (38 re-samples)
8/14	35
8/15	15
<b>TOTAL</b>	<b>114 Distinct Wells</b>

#### Drinking Water Technical Support/Pretreatment/Connections

Morningstar and Farmington are completing the connection between their water systems, current plans are to complete this task the afternoon of 8/16/15. NMED supports EPA's decision to put this pumping system into place. The water system operators will complete the connections and will operate the system once functional. Although the public water intakes have been opened it will take at least 48 hours for the system to completely come back on line.

On August 15, 2015, EPA began transporting and offloading raw water into Morningstar's pretreatment settling ponds. Seven trucks were dedicated to delivering raw water to Morningstar. It is not expected to significantly reduce the need for additional water supply. Morningstar was very appreciative of EPA's quick response and assistance.

#### Surface Water and Sediment Sampling

	<b>8/15/2015</b>	<b>Total to Date</b>
River Surface Water Samples	9	46
River Sediment Samples	9	76

#### Irrigation Ditch Sampling

Soil/sediment samples were taken at two private properties along the river on August 15, 2015 at the request of the locals within Unified Command. One of the property owners reported to the NM Department of Agriculture that one of her goats died and a litter from a prized herding dog were stillborn within the last week. Three samples were taken at one location and two at the other.

	<b>8/15/2015</b>	<b>Total to Date</b>
Non-River Sediment/Soil Samples	5	59

#### Agriculture and Livestock Water

Several agriculture locations rescinded their requests for water after New Mexico lifted the advisory restricting the use of private water wells. It is also anticipated that as the irrigation ditch water levels stabilize, water hauling deliveries will decrease.

	<b>8/15/15</b>	<b>Total to Date</b>
Farmers Served	2	22
Gallons to Farmers	141,960	974,190
Livestock Farms Served	5	22
Gallons to Livestock Farms	9,618	38,925

## 2.2 Finance Section

### Daily Cost Estimates Report

Funding Source	EPA Expended Payroll	EPA Expended Travel	EPA Other Costs	Cumulative Contract Costs	TOTAL Expended	Estimated Daily Burn Rate
EPA	\$148,170.00	\$36,250.00	\$1,854.56	\$972,587.47	\$1,158,803.03	\$171,390.00

## 3. Participating Entities in Region 6

US EPA  
USFWS  
NMED  
ATSDR  
NM Department of Health  
NM Office of the State Engineer  
NM Department of Game and Fish  
County of San Juan – New Mexico

## 4. Personnel

Group	Number
Region 6 EPA @ REOC	9
Region 6 Contractors @ REOC	4
Region 6 Staff in JIC – Durango, CO	1
Region 6 Staff in Area Command – Durango, CO	1
Region 6 RIC – Farmington, NM	1
Region 6 Water Liaison – Santa Fe, NM	1
Region 6 CIC – Farmington, NM	2
ERT Environmental Unit – Farmington, NM	1
Region 6 EPA OSC	5
Region 6/7 Water Technicians	9
Region 6 Contractors in Field	33

U.S. ENVIRONMENTAL PROTECTION AGENCY  
 POLLUTION/SITUATION REPORT  
 San Juan River Response - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 Region IX

**Subject:** POLREP #4  
 San Juan River Response

Shiprock, NM  
 Latitude: 36.8704828 Longitude: -108.7892506

**To:** Robert Wise, EPA Region 9

**From:** Kathleen Dillon, Situation Unit Leader

**Date:** 8/16/2015

**Reporting Period:**

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	<b>Contract Number:</b>
<b>D.O. Number:</b>	<b>Action Memo Date:</b>
<b>Response Authority:</b>	<b>Response Type:</b>
<b>Response Lead:</b>	<b>Incident Category:</b>
<b>NPL Status:</b>	<b>Operable Unit:</b>
<b>Mobilization Date:</b>	<b>Start Date:</b>
<b>Demob Date:</b>	<b>Completion Date:</b>
<b>CERCLIS ID:</b>	<b>RCRIS ID:</b>
<b>ERNS No.:</b>	<b>State Notification:</b>
<b>FPN#:</b>	<b>Reimbursable Account #:</b>

#### 1.1.1 Incident Category

#### 1.1.2 Site Description

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine has a continuous discharge of acidic mine drainage that is a significant contributor of manganese, zinc, copper, and cadmium into the Cement Creek drainage of the Animas River watershed. The Gold King Mine has not had maintenance of the mine workings since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed.

EPA Region 9 is focused on a stretch of the San Juan River extending from Farmington, NM to Mexican

Hat, UT.

### **1.1.2.1 Location**

San Juan County, NM and Navajo Reservation. The Animas River flows into the San Juan River at Farmington, NM. After the Animas River meets the San Juan River, the San Juan River continues to flow west through parts of New Mexico, Colorado, and Utah.

### **1.1.2.2 Description of Threat**

Mine waste water was released into Cement Creek and the Animas River. The volume of the release based on US Geological Survey (USGS) Cement Creek gauging station is estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah. The river is also used for recreational purposes, including fishing and rafting, and is an important cultural resource for the Navajo Nation.

The leading edge of the release reached the New Mexico border on August 8, 2015 where it eventually discharged into the San Juan River.

### **1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**

Aerial and ground reconnaissance indicates that the plume associated with the Gold King Mine release has dissipated downstream. There is no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell.

EPA Region 9 is collecting and assessing water quality from the San Juan River from La Plata Highway in New Mexico to Mexican Hat in Utah. Water sampling is occurring, and pH levels and dissolved concentrations of metals are being monitored.

## **1.2 Incident Objectives**

### **1. Safety**

- Provide safe working environment for all response personnel.
- Identify safety issues and monitor adherence to Health and Safety Plan
- Ensure personnel receive adequate rest and time off

### **2. Sampling**

- Daily water and sediment sampling from 11 designated locations along the San Juan River
- Sampling from Lake Powell
- synchronize sampling data and information with Area Command

### **3. Water Replacement**

- Work with Navajo representatives to staff water points and organize distribution

### **4. Public Outreach**

- Coordinate public forum at which Navajo tribal leaders and community members can address Incident Command representatives.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

Daily operations are focused around gathering water and sediment samples from 11 designated locations in the San Juan River. The Glen Canyon ICP is overseeing sampling in the vicinity of Lake Powell.

Water trucks to address Navajo agricultural and livestock needs have been secured and will be continuing to deliver water to designated locations. The Unified Command has also identified a need on the Navajo reservation to provide feed for livestock.

## **2.1.2 Response Actions to Date**

### **Sampling Branch**

EPA Region 9 initiated water and sediment sampling efforts on August 9, 2015, to assess the impacts of the release at the Gold King Mine on the San Juan River. Starting on August 9, samples were gathered from the shoreline of the following 11 designated locations along the San Juan River:

#### **New Mexico**

San Juan River at LaPlata Highway (SJLP)  
 PNM Intake (SJFP)  
 San Juan River at Hogback (SJHB)  
 San Juan River at Shiprock (SJSR)  
 San Juan DS from Shiprock (SJDS)  
 San Juan River at Four Corners (SJ4C)

#### **Utah**

San Juan River at McElmo Creek (SJME)  
 San Juan at Montezuma Creek (SJMC)  
 San Juan River at Bluff Bridge (SJBB)  
 San Juan River at Mexican Hat (SJMh)  
 McElmo Creek Tributary (MECT)

Sample totals are summarized below:

August 8 - 4 water samples (SJLP, SJFP, SJHB & SJSR)  
 August 9 - 13 water samples (all sites)  
 August 10 - 12 water samples, 11 sediment samples (all sites)  
 August 11 - 13 water samples, 13 sediment samples (all sites)  
 August 12 - 13 water samples, 13 sediment samples (all sites)  
 August 13 - 12 water samples, 12 sediment samples (all sites)  
 August 14 - 12 water samples, 12 sediment samples (all sites)  
 August 15 - 12 water samples, 12 sediment samples (all sites)

Three semi-permanent monitoring systems will be put in place today to keep a constant gauge on San Juan water quality information.

There have been 0 requests for well samples and 0 requests for samples from diversion channels. This will be discussed further at the meeting with Navajo Nation today and will be noted in tomorrow's report.

### **Community Relations Branch**

Region 9 continues daily meetings at designated Navajo Chapters. Chapter meetings are summarized below:

8/10 - Oljeto, Aneth  
 8/12 - Shiprock  
 8/14 - Oljeto, Aneth  
 8/15 - Hogback, Nenahnezad, San Juan, Upper Fruitland, Cudei

Yesterday, community Involvement Coordinators attended a chapter meeting in Nenahnezad. Chapters including Upper Fruitland, Hogback, and San Juan were also in attendance. This is the first time EPA has

presented to these communities as a part of this emergency response.

The meeting was well attended, with between 150-200 people, and lasted upwards of 5 hours. The meeting was attended by Navajo Nation officials, Chapter officials, and the press as well as community members. EPA was able to give a statement and discuss updates, including the release of some data today. Statements were also made by other representatives as well as community members (again, more information to come).

The field team emphasized that issues related to the claims forms are a very large concern and represent one of the biggest reasons EPA's relationship with communities is currently fractured.

Chapter meetings are scheduled today with the Mexican Water, Red Mesa and Tec Nos Pas chapters.

A meeting with the Farmington IC and Window Rock representatives will be held today to discuss a Unified Command.

### **Water and Feed Delivery Branch**

A summary of water tank delivery for use for livestock and agriculture is as follows:

8/13 - 11,000 gallons of water delivered to Hal Chita, UT, 7,000 gallons of water delivered to Shiprock, NM  
 8/14 - 12 tanks (each 16,000 gallons) staged throughout Shiprock chapter  
 8/15 - 13 tanks (each 16,000 gallons) staged throughout various chapters of Navajo Nation. GPS coordinates and specific information regarding location of these tanks is being processed this afternoon

A summary of feed delivered for livestock is as follows:

8/14 - 384 bales delivered to Gaadiiahi chapter

Two additional bales anticipated to be delivered tomorrow to two chapters.

### **Drinking Water System Impacts**

No known water systems in Region 9 have been impacted. Efforts to reach the Navajo Tribal Utility Authority this weekend to gather more information on this matter have not been successful but will continue tomorrow.

### **Glen Canyon, Arizona ICP**

A second ICP was established on August 13 at the National Park Service Glen Canyon Headquarters. The National Park Service is providing EPA Region 9 with office space, logistical support, and housing. The focus of this ICP will be sampling Lake Powell in addition to performing community outreach.

Yesterday, EPA and START conducted sampling of the San Juan Arm of Lake Powell. Vessel to conduct these samples was provided by NPS Glen Canyon. Water and sediment samples were collected at 6 locations throughout the San Juan Arm.

Today the sampling team will collect samples from the main stem of Lake Powell between Dangling Rope and Glen Canyon Dam.

### **Other Notes**

Yesterday, the State of Utah lifted its advisory for crop irrigation and livestock watering.

Preliminary data was processed for water samples from last Wednesday and was made available for review yesterday.

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

Sediment and water sampling of the eleven data points on the San Juan River will continue today. Two samples along San Juan River (Mexican Hat and Bluff Bridge) will be gathered from the middle of the channel via small boat. The other 9 sample sites will continue to be gathered from the shoreline.

Sampling in the vicinity of Lake Powell will also continue out of the Glen Canyon ICP.

Yesterday, a more robust water distribution system will be established throughout Navajo Nation. Water tanks are now staged at 13 total points throughout Navajo Nation with a capacity of 32,000 gallons of water at each location except for one location that has a capacity of 16,000 gallons.

Additional representatives from the EPA's community relations team have arrived at the Farmington ICP. These members will be meeting with the Mexican Water, Rd Mesa, Aneth, Mexican Hat, and Tec Nos Pos chapters today. A fact sheet has been established that will be distributed throughout Navajo Nation and will provide contact information for community members to reach Command representatives.

#### 2.2.1.1 Planned Response Activities

Continued daily water and sediment sampling is planned.

Refilling water tanks staged throughout Navajo Nation will continue as needed.

Community Outreach Branch at Farmington ICP will continue outreach with members of Navajo nation.

#### 2.2.1.2 Next Steps

Improve relationship with Navajo Nation.

### 2.2.2 Issues

No current issues.

## 2.3 Logistics Section

No information available at this time.

## 2.4 Finance Section

### 2.4.1 Narrative

Yesterday, there was a burn rate of \$6,485.79 with a weekly burn rate of \$45,400.52. On average a total of \$4,302.23 is spent on personnel per day.

A total of \$205,308.50 is committed for upcoming operations.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

Personal Flotation Devices must be worn by all members of sampling teams while underway on any watercraft. When performing boat operations, a representative from each vessel must contact the Situation Unit Leader at intervals of no more than two hours stating location and current operations. Any lightning sighting will cause a stop to operations.



With weather being forecasted into the mid 90s, hydration is of paramount importance. Additionally, much of the terrain surrounding the river is uneven and rocky. Responders should transit these areas.

While transiting throughout the region, responders should be mindful of the potential for contact with wildlife. Scorpions, snakes, and other similar animals raise a potential for injury.

### **2.5.2 Liaison Officer**

Liaison officers are continuing outreach with Navajo community members and representatives of the Navajo Tribe.

### **2.5.3. Weather Forecast**

Weather forecast for Sunday, August 16

#### **FARMINGTON AREA**

##### *Today*

A mix of sun and clouds with a high of 96, low of 63 and 20% chance of precipitation. Wind coming out of the east at 10 miles per hour.

##### *Tonight*

No precipitation tonight. Partly cloudy, with a low around 63.

##### *Tomorrow*

Sunny with a high of 96, low of 61. 20% chance of precipitation.

## **3. Participating Entities**

### **3.1 Area Command**

EPA Region 9 is coordinating with EPA Regions 6 and 8, Navajo Nation, and the states of Colorado, New Mexico, Utah, and Arizona. The EPA Region 9 is working with the Navajo Nation to evaluate possible impacts to the Tribe. Potentially impacted water systems have been notified, and precautions are in place to ensure drinking water is protected. The EPA and New Mexico Environmental Department are providing assistance to community water systems and closely monitoring the situation. EPA Region 9 has contacted the Bureau of Indian Affairs regarding potential impacts to the Navajo Nation and is currently working with Navajo liaisons.

### **3.2 Unified Command and Cooperating Agencies**

The UC includes EPA Region 9 and United States Coast Guard. Bret Moxley has assumed the role of Incident Commander.

## **4. Personnel On Site**

EPA - 8  
EPA START - 8  
ERRS - 5  
USCG - 8  
Navajo Liaisons - 2

## **5. Definition of Terms**

No information available at this time.

## **6. Additional sources of information**

## **6.1 Internet location of additional information/report**

[www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine)

## **7. Situational Reference Materials**

No information available at this time.